

REMARKS

Applicants have thoroughly considered the Examiner's remarks in the September 14, 2007 Office action and have amended the application to more clearly set forth aspects of the invention. This Amendment A amends claims 1, 6-7, 9, 11, and 17-22. No new matter has been added. Claims 1-22 are thus presented in the application for further examination. Reconsideration of the application as amended and in view of the following remarks is respectfully requested.

Claim Rejections Under 35 U.S.C. §101

Claims 18-22 stand rejected under 35 U.S.C. §101 for being inclusive of data signals that are not statutory subject matter. Applicants disagree, and assert that carrier waves, data signal, and other intangible, communications media are statutory subject matter. A signal encoded with functionality descriptive material is similar to a computer readable medium encoded with functionally descriptive material, both of which are capable of a functional interrelationship with a computer. To advance prosecution, however, Applicants have amended claims 18-22 to recite “computer storage medium” which is supported by paragraph 56 of the Application. Hence, the rejection of claims 18-22 under 35 U.S.C. §101 should be withdrawn.

Claim Rejections Under 35 U.S.C. §102

Claims 1-22 stand rejected 35 U.S.C. §102(b) as being anticipated by US Patent Pub. No. 20020004773 to Xu et al. Applicants respectfully submit that Xu fails to disclose or suggest each and every element of amended claim 1.

Amended claim 1 recites, in part, “**receiving a request from a user for access to the web service, said request including the user certificate;**... comparing the user certificate data included in the user certificate to the revoked certificate data stored in the central location; authenticating the user **if the comparing indicates that the user certificate data matches the revoked certificate data in the central location;** providing the user access to the requested web service when the user is authenticated; **if the comparing indicates that the user certificate data from the requested user certificate does not match the revoked certificate data stored in the central location:**

authenticating the user;

providing the user access to the requested web service;
identifying an address from the user certificate data included with the request, said address identifying the location of revoked certificate data for a plurality of revoked certificates being maintained by at least one of the plurality of certificate issuers; and
storing the address in the central location for subsequent retrieval.”

Aspects of the invention improve on existing implementations of certificate management by providing a central location for storing a plurality of revoked certificates for providing the revoked certificates to a user upon request. In addition, in the event that a user's request does not match any of the plurality of revoked certificates in the central location, embodiments of the invention nevertheless authenticate the user certificate and allow the client to access the requested application per the user request. Embodiments of the invention further parse the data included in the user certificate 325 to identify an address, such as the CDP (e.g., URL address) and store the identified CDP in the database for subsequent retrieval by fetching servers. See also paragraphs [0040] and [0050-0051]. This is beneficial for maintaining a most up-to-date revoked certificate database for authenticating the user.

To the contrary, Xu is silent with respect to the authenticating the user in the event that the user data is not found in the revoked certificate. See also FIGS. 2, 3 and 8. Xu also could not anticipate embodiments of the invention as recited in amended claim 1 because Xu also specifies that in the event one wishes to receive a latest revoked certificate, one needs to actively to obtain such certificate.

[0076] 4. RFC1424 retriever agent

[0077] As we discussed in the above 3, RFC1424 CRL retrieval service is provided through mailboxes maintained by each CA's PCA. If you want to get a CA's latest CRL, you need to register with the PCA or send a CRL-retrieval request to the PCA's mailbox. The PCA will send you a CRL-retrieval reply message containing the requested CRL. Both CRL-retrieval request message and CRL-retrieval reply message are a type of Privacy-Enhanced Message(PEM). So you must have a mailbox and a PEM user agent to send CRL-retrieval request messages and to receive CRL-retrieval reply messages.

This further complicates the entire certificate authentication process and thus cannot anticipate embodiments of the invention. Furthermore, Xu teaches away from authenticating in

the event that a user's request does not match any of the plurality of revoked certificates in the central location. Instead, Xu teaches using an API call to request the CRL from the CRL database and **“ascertain whether the certificate is listed in the CRL and return the result to the e-Commerce application.”** Xu, paragraph [0047]. In other words, if the CRL is listed, the API returns the requested CRL; if the CRL is not present in the database, the result indicates a failure to retrieve the CRL from the database and the e-Commerce application's access is denied when there is no match. Thus, it would not be obvious to combine Xu with other prior art that generally teaches authentication since Xu teaches away from such authentication when there is no match. Therefore, the rejection of claim 1 and its dependent claims 2-8 under 35 U.S.C. §102(b) should be withdrawn.

Amended claim 9 recites, in part, “

retrieving the stored revoked certificate data from the central location;
comparing a user certificate data included in a user certificate included in a user request to the stored revoked certificate data, said user request being received from a user;
authenticating the user if the comparing indicates that the user certificate data matches the revoked certificate data in the central location;
providing the user access to the requested web service when the user is authenticated;
identifying an address of each of the one or more certificate issuers from the retrieved revoked certificate data;
if the comparing indicates that the user certificate data from the requested user certificate does not match the revoked certificate data stored in the central location:
authenticating the user;
providing the user access to the requested web service;
identifying another address from the user certificate data included with the request, said address identifying the location of revoked certificate data for a plurality of revoked certificates being maintained by at least one of the plurality of certificate issuers;
storing the another address in the central location for subsequent retrieval...”.

For at least the reasons above, Applicants respectfully submit that the rejection of claim 9 and its dependent claim 10 under 35 U.S.C. §102(b) should be withdrawn.

Amended claim 11 recites, in part, “an authentication server responsive to the client request for executing a certificate revocation provider component, said certificate revocation provider component loading the revoked certificate data in the central database into a memory

associated with the authentication server, and wherein the certificate revocation provider component is responsive to the client request and loaded revoked certificate data to determine if the client request is authentic **based on a match of the client request and the stored revoked certificate data, wherein, if a match of the client request and the stored revoked certificate data is not found, the authentication server authenticates the user, and wherein the certificate revocation provider component identifies an address from the user certificate data included with the client request, said address identifying the location of revoked certificate data for a plurality of revoked certificates being maintained by at least one of the plurality of certificate issuers; and wherein the certificate revocation provider component stores the address in the central database for subsequent retrieval by the fetching server.**”

For at least the reasons above, Applicants respectfully submit that Xu fails to disclose or suggest each and every element of amended claim 11. Hence, the rejection of claim 11 and its dependent claim 12-16 under 35 U.S.C. §102(b) should be withdrawn.

Amended claim 17 recites, in part, " a central database responsive to the retrieved revoked certificate status data for storing a list of revoked certificates, **wherein the fetching server identifying a address from a user certificate data included in a client request for the stored the list of revoked certificates if it is determined that there is no match between the user certificate data and retrieved certificate status data, said address identifying the location of revoked certificate data for a plurality of revoked certificates being maintained by at least one of the plurality of certificate issuers, and wherein the central database stores the address in the central location for subsequent retrieval.**"

For at least the reasons above, Applicants submit that Xu fails to disclose or suggest each and every element of amended claim 17. Hence, the rejection of claim 17 under 35 U.S.C. §102(b) should be withdrawn.

Amended claim 18 recites, in part,

authenticating instructions for selectively authenticating the user if the comparing indicates that the user certificate data matches the revoked certificate data in the central location;
providing instructions for providing the user access to the requested web service when the user is authenticated;

if the comparing indicates that the user certificate data from the requested user certificate does not match the revoked certificate data stored in the central location;
wherein the authentication instructions authenticate the user;
wherein the providing instructions provide the user access to the requested web service;
identifying instructions for identifying an address from the user certificate data included with the request, said address identifying the location of revoked certificate data for a plurality of revoked certificates being maintained by at least one of the plurality of certificate issuers; and
wherein the storing instructions store the address in the central location for subsequent retrieval.

For at least the reasons above, Applicants respectfully submit that the rejection of claim 18 and its dependent claim 19-21 under 35 U.S.C. §102(b) should be withdrawn.

Amended claim 22 recites, in pertinent part,

"comparing instructions for comparing a user certificate data included in a user certificate included in a user request to the stored revoked certificate data, said user request being received from a user;
authenticating instructions for authenticating the user if the comparing indicates that the user certificate data matches the revoked certificate data in the central location;
providing instructions for providing the user access to the requested web service when the user is authenticated;
identifying instructions for identifying an address of each of the one or more certificate issuers from the retrieved revoked certificate data;
if the comparing indicates that the user certificate data from the requested user certificate does not match the revoked certificate data stored in the central location;
wherein the authenticating instructions authenticate the user;
wherein the providing instructions provide the user access to the requested web service;
wherein the identifying instructions identify another address from the user certificate data included with the request, said address identifying the location of revoked certificate data for a plurality of revoked certificates being maintained by at least one of the plurality of certificate issuers;
wherein the storing instructions store the another address in the central location for subsequent retrieval..."

For at least the reasons above, Applicants respectfully submit that the rejection of claim 22 under 35 U.S.C. §102(b) should be withdrawn.

Conclusion

Applicants submit that the claims are allowable for at least the reasons set forth herein. Applicants thus respectfully submit that claims 1-22 as presented are in condition for allowance and respectfully request favorable reconsideration of this application.

Although the prior art made of record and not relied upon may be considered pertinent to the disclosure, none of these references anticipates or makes obvious the recited aspects of the invention. The fact that Applicants may not have specifically traversed any particular assertion by the Office should not be construed as indicating Applicants' agreement therewith.

Applicants wish to expedite prosecution of this application. If the Examiner deems the application to not be in condition for allowance, the Examiner is invited and encouraged to telephone the undersigned to discuss making an Examiner's amendment to place the application in condition for allowance.

The Commissioner is hereby authorized to charge any deficiency or overpayment of any required fee during the entire pendency of this application to Deposit Account No. 19-1345.

Respectfully submitted,

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